Economic Review

Federal Reserve Bank of San Francisco

Fall 1991 Number 4

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The Use of Equity Positions by Banks: The Japanese Evidence

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This paper is partly based on a chapter of my dissertation submitted to the Department of Economics, University of Toronto. I would like to thank the Center for Japanese Studies, Graduate School of Business, Columbia University, for granting me access to the NEEDS financial tapes. I am particularly indebted to Profs. Hugh Patrick and Masako Darrough for kindly making such an arrangement. Grateful acknowledgement is also extended to Hang-Sheng Cheng, Mark Levonian, Ramon Moreno, Brian Motley, and Randy Pozdena, for their comments and suggestions. Able research assistance was provided by Sean Kelly.

This paper draws on Japan's experience to analyze the merits of conferring securities powers on banks. By issuing debt and equity jointly to a single outside investor, the shareholder bank, firms will incur lower deadweight costs associated with bankruptcy and monitoring than if these claims are issued to separate entities. The level of Japanese banks' shareholding in firms during the late 1960s is generally consistent with this explanation of financing decisions. Most notably, banks as a rule provided joint debt-equity financing rather than pure debt financing. Moreover, holding other things constant, the level of a bank's equity holding increased in proportion to financing it supplied the firm and to the riskiness of investment.

A broad consensus now prevails that a firm in need of external financing for investment may incur deadweight losses that another firm, with sufficient internal funds but otherwise identical, would not. The basic idea is that when a firm knows more than outside financiers about its own prospects and/or actions that affect its prospects, external financing will engender deadweight or "agency costs" which ultimately fall on the firm. Credit- and equity-rationing, the need to meet strict collateral and other financial requirements, and resources expended on monitoring, are some of the manifestations of such costs.

One important conclusion from the literature is that the more the corporate sector relies on external funds, the greater will be the potential magnitude of agency costs. In such a setting, the extent to which the market can devise and implement contracts which attenuate these information-related costs will have a significant bearing on the "real" performance of the economy. Financial contracts do not materialize in a vacuum, however. The extent to which agents can mitigate capital market imperfections is dictated by the legal and institutional parameters of the financial system itself. Notably, we employ financial contracts with constraints idiosyncratic to the Anglo-American system, namely, the separation of commercial and investment banking. There is no reason to believe, however, that such a systemic constraint should remain binding, much less be desirable, across time and space. If the corporate sector's dependence on external financing is sufficiently heightened, for instance, the constraint itself may be subject to change.

The postwar Japanese experience is a case in point. The rapid investment-led growth from the 1950s to the early 1970s put a formidable burden on Japan's financial system. By virtue of the pace of growth, industries' demand for external funds was large relative to their net worth or collateral and hence, the potential agency costs in issuing debt and equity were commensurately high. In such a setting, the banks, which were the primary conduit of investable funds, were legally sanctioned simultaneously to extend loans and to hold shares of client firms.[1] The predominant mode of financial contracts during Japan's

rapid growth period thus featured the major lenders as also significant shareholders. Judging from the performance of its economy, such a system appears to have met admirably the task of underwriting Japan's growth.

Drawing on Japan's experience, this paper explores the possible merits of conferring on banks securities powers.[2] It does so in two steps. Section I motivates the relevance of financing choice on firm value under two types of capital markets imperfections: costly bankruptcy and imperfect information. Two points are established here. First, the value-maximizing financial contract will optimally trade off the agency cost of debt against that of equity. Second, total agency cost of external finance will be lower when debt and equity claims are jointly issued.

If agency costs do indeed matter in firms' financing decisions, then firm-specific parameters affecting the relative severity of the agency costs of debt versus those of equity should explain observed interfirm differences in ownership structure. Section II explores this issue by focusing on the determinants of the level of the bank's equity holding for a cross-section sample of Japanese firms during the period of rapid growth. The main contribution here is the attempt to ascertain the effects of firm-specific parameters on the level of the bank's equity claims that is *jointly* held with debt claims. This approach contrasts with previous studies that have focused on determinants of more "conventional" measure of firms' capital structure such as leverage ratio.[3]

I. An Agency Cost Approach to Corporate Finance[4]

Deadweight Costs of External Financing

Consider an entrepreneurial (i.e., owner-managed) firm facing an investment that requires external financing. Its return depends on a productive input we shall refer to as "effort," whose level is set by the owner-manager. Higher levels of effort enhance the return on the investment, but at a cost of increasing the disutility incurred by the manager. The investment is risky because it also depends on a random variable the manager does not control.[5]

The owner-manager can raise the required amount of external financing by issuing debt and/or new equity. Assume that banks are the only lenders in the system.[6] Furthermore, to serve as a benchmark, assume initially that banks cannot own equity; that is, lenders in the system cannot be shareholders. If the investment is undertaken, the firm can then be viewed as the nexus among three types of claimants: the original shareholder (the owner-manager), the new shareholder, and the lender (bank). As Modigliani and Miller (1958) demonstrated, the value of the firm will be independent of its financial structure if capital markets are perfect. I motivate the relevance of the financing decision by the owner-manager by positing two types of imperfections.

First, bankruptcy is assumed to be costly in the sense that the transfer of assets from the shareholders to the creditors consumes some fraction of their total value. These deadweight costs include lawyers' and accountants' fees, and costs incurred in auctioning off the firm's assets. Though more difficult to measure, bankruptcies also impose indirect costs which may turn out to be even larger.[7] Legal disputes or the perceived conflict of interest between the shareholders and creditors of the firm can distract and constrain the managers from properly running the business. Customers may desert financially distressed firms and suppliers may exact more favorable terms. If lenders are rational, these costs will be anticipated when negotiating the loans. Consequently, the expected deadweight cost of bankruptcy will ultimately fall on the borrower.

The second set of imperfections relates to asymmetric information between the firm and outside suppliers of funds, the creditor (bank) and the *new* shareholder. This gives rise to two types of incentive or moral hazard problems. Consider first the case when new shares are issued. As the owner-manager cedes larger proportions of the firm's residual profit to the new shareholder, the effort level, which is private information to the owner-manager, will decline.[8] This obtains from a standard assumption in principal-agent models: The outside shareholder (principal) shares in the fruits of the insider's (agent's) effort, but not in the level of effort itself. As a result, the agent provides less effort than the principal deems optimal. Insofar as the profitability of the firm depends on effort, the prospective shareholder will impute the effect of this adverse incentive when pricing the firm's equity. The inside shareholder will therefore suffer a reduction in the value of his equity.[9]

Deadweight costs will arise with issues of debt as well. First, the shareholder has an incentive to gain at the expense of the lender by increasing the riskiness of the investment the firm undertakes. This obtains because if a risky investment turns out to be very profitable, the shareholder captures most of the gain, while the maximum return to the lender is fixed to the contracted interest plus principal. If, on the other hand, the investment fails, limited liability will shield the shareholder and the lender will bear the consequences. This asymmetry in the pay-

off—bounded maximum downside loss but unbounded upside return—creates an incentive for the shareholder to invest in risky projects even if they have lower net present value than a safer project.[10]

The rational lender will anticipate the risk-taking propensity of the shareholder and demand an interest rate commensurate with the maximum amount of risk that the firm can undertake. In other words, by anticipating the full extent of the moral hazard risk-shifting by the shareholder, the lender will preempt any possible appropriation of his wealth. But such a preemptive measure will prove costly to the shareholder—and ultimately to society. Other things equal, a higher interest rate implies a higher probability of bankruptcy and hence, a higher expected cost of bankruptcy. In a competitive debt market, this higher expected cost will be passed on to the shareholder.

When the level of effort is private information to the insider, issues of fixed claims to outsiders will give rise to yet another deadweight cost. The level of effort set by the manager will decline as the probability of bankruptcy increases. This is a rational response because when the firm is bankrupt, its ownership will fall into the creditor's hands and the manager will not reap any return to expanding effort. Accordingly, effort will decline as interest rates rise, since the latter implies higher probability of bankruptcy. But reduced effort implies greater probability, and hence greater expected cost, of bankruptcy. Again, this deadweight cost will be passed onto the firm.

To summarize, the firm will incur deadweight losses whether it issues debt or equity. Substituting debt for equity substitutes one set of deadweight losses for another, but does not eliminate them, so long as the firm needs external financing. Under such circumstances, the firm's financing decision will matter because by optimally trading off the deadweight cost of debt against that of equity, total deadweight cost will be minimized. That firms do not exclusively rely on debt or on equity presumably reflects the fact that such "corner solutions" are not optimal from the point of view of minimizing agency costs.

Advantages of Joint Debt-Equity Financing

The joint issue of both fixed and residual claims to a single outside financier—the lender-cum-shareholder bank—can be motivated by two sets of considerations. The first is reductions in bankruptcy costs, direct as well as indirect. To the extent that the debtholder already owns a fraction of the firm, the total cost that will be incurred in transferring the firm's asset from the shareholders to the creditor in the event of bankruptcy will be smaller than when these claim holders are mutually exclusive entities.

The second set of advantages concerns the efficiency gains in monitoring. Up to this point, it has been assumed that outside financiers anticipate the full extent of moral hazard and price the firm's securities accordingly. However, the severity of the moral hazard problem, and hence its deadweight costs, can be attenuated by monitoring the activities of the insider. It will be ultimately in the interest of the owner-manager to subject himself to such scrutiny if the total monitoring cost is less than the reduction deadweight costs that it brings about, since the insider ultimately bears the agency costs in either case.

A commonly discussed pattern in the literature is that the lender checks the borrower's propensity to undertake risk through monitoring.[11] The outside shareholder monitors the effort of the manager, who acts in the interest of inside shareholders, and thereby enhances the net return to the investment. As in other forms of information production, however, monitoring exhibits economies of scope. Needless duplication of monitoring costs will be eliminated by having a single outside financier, i.e., the lender-shareholder, performing the monitoring. The idea can be illustrated with a simple example.

Suppose that the outside shareholder incurs X units of monitoring cost to increase the effort level of the manager by Δe. Analogously, suppose that the lender also devotes X units of resource to reduce the riskiness of the firm by $\Delta\sigma^2$. This will have two effects. First, the reduction in risk will lower the bankruptcy probability and hence the expected cost of bankruptcy. Second, the lowered bankruptcy probability, in turn, will raise the marginal expected return to effort for the owner-manager, and thus will elicit higher effort. Thus, the shareholder's monitoring of effort, which is costly, will be partly redundant as long as the lender's monitoring of risk has some positive spill-over effect on effort. By the same logic, the lender's monitoring of risk will be redundant, in part or in whole, when the shareholder is monitoring effort, since higher effort lowers bankruptcy probability and hence its expected cost.

Why can't the lender and shareholder coordinate the task of monitoring so as to eliminate any duplication? One obvious obstacle to such coordination is the agency conflict that prevails between the two. For example, while the lender can safely rely on the incentive of the shareholder to monitor the effort of the manager, he cannot trust the shareholder to monitor risk with commensurate self-interest; the shareholder prefers higher to lower risk. So long as a dissonance of interest prevails between the lender and the shareholder, the bundling of debt and equity claims into a single entity (i.e., the lender-shareholder bank) is a more efficient way to capture the economies of scope in monitoring, and ultimately to reduce the deadweight costs of external financing.

Hypotheses

While agency and bankruptcy costs provide a theoretical justification for the relevance of financing decision, are these costs indeed significant in reality? This question can be addressed more formally through a number of hypotheses suggested by the theoretical framework. The most obvious hypothesis is: if issues of debt and equity do impose deadweight losses, the prevalent mode of financing should feature the lending bank as a shareholder in the same firm, provided, of course, that the legal system permits it. In addition to this broadly cast prediction, more specific hypotheses emerge on interfirm differences in the level of equity stake held by lenders.[12]

HYPOTHESIS 1: the bank's shareholding will be larger the higher is the magnitude of deadweight losses holding the probability of bankruptcy constant. As the creditor holds larger equity stake in the firm, we would expect these deadweight costs to decline on sheer logistic grounds: a smaller portion of the firm's assets need to change hands. More significantly, perhaps, the greater coincidence of interest between debt and equity that obtains by definition in a lender-shareholder financing scheme will reduce the indirect cost of bankruptcy, or even reduce the probability that the firm encounters financial distress in the first place.

HYPOTHESIS 2: The higher is the firm's dependence on the bank's funds, the higher will be the bank's equity stake in the firm. All other things equal, the more the firm relies on outside financing, the higher will be the agency costs of debt as well as that of equity.[13] Greater equity holding by the bank may attenuate these deadweight costs on two grounds. First, by structuring a greater portion of the bank's return through equity, the expected costs of bankruptcy will be reduced. Second, increased shareholding may enhance the efficiency as well the clout of the bank in checking both types of moral hazards discussed above, i.e., risk-shifting and shirking on effort.

HYPOTHESIS 3: Holding the level of risk constant, the higher the expected profitability of the firm, the lower should be the bank's equity holding in the firm. Higher profitability implies lower probability of bankruptcy and hence lower expected deadweight cost of debt.[14] On the other hand, higher profitability will exacerbate the incentive problem associated with issues of (outside) equity: Outside financiers share an enlarged pie while the original owner-manager incurs all the cost of making it. The two effects combined should lead to a lower reliance on equity.

HYPOTHESIS 4: the bank's shareholding will be higher in riskier firms. Holding expected return constant, higher risk implies higher probability of bankruptcy and hence higher expected cost of bankruptcy. By structuring larger portions of the bank's return through equity than debt, the probability of bankruptcy, and hence its expected cost, will be reduced.

The collateral value of the firm is also germane here. The more tangible is the form of the firm's investment, the less opportunity is presumably available to the firm to engage in asset substitution that increases risk. The fraction of a firm's assets accounted for by tangible assets is therefore a (negative) indicator of discretionary opportunities to shift risk to lenders. The higher the firm's collateral value, therefore, the lower will be lenders' shareholding. Empirically, however, it will be difficult to untangle this risk-attenuating aspect of collateral from lowered bankruptcy cost considerations discussed earlier.

Application to Japan

Postwar Japan provides a fertile ground to test the hypotheses outlined above. As noted earlier, its legal system has allowed banks to combine corporate lending with equity participation. Moreover, the high reliance of the corporate sector on external funds during the 1960s through the early 1970s suggests that the magnitude of agency costs, and hence the incentive to mitigate them, would have been significant. Testing the hypotheses, however, requires some institutional background on the postwar Japanese financial system and industrial organization.

Japan's financial markets were tightly regulated until the mid-1970s, when gradual deregulation was begun. One of the main objectives of the authorities was to make industrial financing the virtually exclusive preserve of Japan's financial institutions and to limit their number by strictly controlling entry.[15] As a result, Japan's corporate bond market has remained thin and the number of major corporate lenders limited. Excluding government financial institutions, major conduits of funds consist of a dozen city banks, three long-term credit banks, seven trust banks, and large life insurance companies.[16] According to Hodder and Tschoegl (1985) fewer than 30 financial institutions may control over 90 percent of private lending to large industrial firms.

As is the case elsewhere, large Japanese firms typically procure financing from a consortium of lenders. What distinguishes the Japanese loan consortium, however, is the special role played by the lead or "main" bank. Although a precise and steadfast definition cannot be assigned to the term, a typical main bank would be a city bank, which is the largest lender as well as a significant shareholder of a given firm. One important function of the main bank, as Sheard (1989) put it, is to act as a delegated monitor among lenders. It screens and monitors corporate borrowers on

behalf of all lenders in a given consortium.[17] The main bank also shoulders most of the burden of reorganization, bail-outs or outright liquidation when a corporate client encounters financial distress.[18]

The main banking system typically occurs within the organizational context of the *keiretsu*, loosely translated as a corporate group. Firms belonging to these groups tend to maintain long term relationships with one another. Intra-*keiretsu* ties are maintained through informal or implicit commitments; they are also manifest in explicit financial commitments of reciprocal shareholding. At the fulcrum of each of these groups are the major city banks. Thus, for example, the Mitsui Bank will most likely serve as the main bank for most firms belonging to the Mitsui *keiretsu*. Major city banks are themselves flanked by two or three closely affiliated financial institutions. For example, the Mitsui group includes at its financial core Mitsui Trust and Banking, Taisho Marine and Fire Insurance, and Mitsui Life Insurance Company. In view of the close coordination that is said to prevail among the *keiretsu* financial institutions, it seems reasonable to regard them collectively as a single economic agent; that is, for purposes of mitigating the agency costs of external finance, it is the *collective* shareholding of all *keiretsu* financial institutions that is likely to matter. I therefore use this level of aggregation to measure the bank's shareholding in the empirical analysis to follow. For ease of exposition, the term "main bank" throughout the remainder of the paper will refer to the **group** of *keiretsu* financial institutions centered around the city bank.[19]

II. An Empirical Test

Variables and Empirical Proxies

Main bank's shareholding. This is the dependent variable in the estimated regression equations. Firm-level data for this variable were compiled from Economic Research Association's (Keizai Chosa Kyogikai) annual publication, *Keiretsu no Kenkyu* (Research in Corporate Financial Groups). ERA employs a primarily quantitative criterion to define a financial group. If a firm has obtained the largest amount of financing from the same bank for three or more consecutive years to date, then that firm is classified as belonging to the bank's *keiretsu*. As in any exercise in taxonomy, ambiguities inevitably arise, and the ERA applies two additional criteria for inclusion where necessary: (i) shareholding by group members exceed 20 percent; (ii) historical ties.

Bankruptcy costs. Two set of proxies were considered. The first is the collateral value of the firm—defined as the proportion of tangible assets in the firm's total assets—as a negative correlate of bankruptcy cost.[20,21] According to Myers (1977), the deadweight losses of bankruptcy will be more pronounced for intangible assets that are linked to the health of the firm as a going concern; that is, the lower the collateral value of the firm, the higher will be its expected bankruptcy costs. For example, technical know-how, human capital, and brand image are likely to lose a greater proportion of their values than tangible physical assets such as plant and equipment, when the firm ceases, or is threatened to cease, as a going concern. If this argument is correct, one should observe a negative relationship between the level of shareholding by lenders and the ratio of the firm's tangible assets to total assets.

As is often the case, however, this empirical proxy may not *uniquely* capture the theoretical attribute we wish to measure. As already noted, collateral value may also serve as a negative correlate of risk. An additional complication concerns the so-called asset specificity effect suggested by Williamson (1985). The idea is that as a firm's assets become more "specific" to existing contractual relations, and hence less redeployable outside these relationships, the salvage value of the firm, *given* that bankruptcy occurs, will decline; that is, bankruptcy costs rise with the degree of asset specificity of the firm and the hypothesized effect is a greater reliance on equity structuring the bank's return through equity participation. One cannot rule out ex ante the possibility that a firm's ratio of fixed to total assets also proxies for the degree of asset specificity. The two will exert opposite effects.

The second proxy tries to capture the indirect cost of bankruptcy. The conflict of interest between shareholders and creditors during financial distress may seriously impair the firm's capacity to take appropriate actions to stem further deterioration. Appropriate action may entail timely disposal of the firm's rapidly depreciating assets or, alternatively, new investment to boost its competitiveness. In either case, the indirect costs of financial distress may be more acute when the firm operates in a very dynamic and rapidly growing market. For one, the failure to keep up with market growth, let alone shutdowns, would exact a high toll in terms of forgone output and, perhaps more importantly, loss in market share. The expected *industry*-wide growth level was therefore included in the regression analyses as a possible correlate of the (expected) indirect cost of financial distress.

External Financing Ratio. This variable is intended to measure the extent to which a firm relies on the main bank to finance its investments. I therefore computed the ratio of financing obtained from the largest *keiretsu* financial group to total assets.

Expected Profitability. The level of profitability was proxied by the rate of business profit defined as:

$$RBP = \frac{\text{gross profit} + \text{receipts of interest plus dividends}}{\text{total assets}},$$

where gross profit is earnings before taxes and interest payments. The choice of this proxy over other measures of profitability is due to Nakatani (1984). He argues that since total assets equal own capital plus debt, the rate of return on total assets should include both current profits and interest paid to financial institutions; counting current profit alone will bias downward the rate of return for those firms with a greater debt burden.

Risk. A natural proxy for risk is a measure of volatility defined as the standard deviation of the rate of business profit.[22] In addition, three other possible proxies of risk were considered. The first is the expected growth of the firm. It has been argued that insiders may have greater potential to obtain information about the prospects of a more rapidly growing firm than outsiders do. A rapidly growing firms may also be riskier because insiders potentially have greater scope and discretion to engage in risky activities; for example, they have greater flexibility in the choice of future investments.[23] The estimated model therefore included expected sales growth as a positive indicator of risk.

Second, the age of the firm was included to explore the possibility that the agency costs are less severe in older firms than in new firms. Compared to relatively mature firms charting familiar waters, newer firms may face greater uncertainty, for example, exploring new technology or markets.[24] Furthermore, established firms may be more cautious about jeopardizing their reputations for the sake of short-term gain through morally hazardous behavior.

Finally, the size of firms may also proxy for risk. Larger firms tend to be more diversified and hence less prone to bankruptcy risk. This implies the opposite effect on the firm's claim structure: banks should hold lower residual claims in larger firms.[25]

Table 1 takes stock of the arguments presented thus far.

Table 1

Predicted effects on the level of shareholding by the main bank

Theoretical variables	Proxies	Predicted effects
Bankruptcy cost	Collateral value	− or +
	Expected industry growth rate	+
External financing ratio	Ratio of Main bank financing to Total asset	+
Expected profitability	Rate of business profit (RBP)	−
Risk	Collateral value	−
	Standard deviation of RBP	+
	Expected growth of the firm	+
	Age of firm	−
	Size of firm	−

Data and Estimation Procedure

The variables were analyzed for the period 1964-1970, because it represents the last major investment boom (56 months of uninterrupted growth from November 1965 to July 1970) before the first oil shock. Data on the sources of loans and shareholder composition are from *Keiretsu no Kenkyu*. The year of the firm's establishment was taken from *Kaisha Nenkan* [Company Annual] published by Nikkei. All other variables were compiled from the NEEDS corporate financial data tape which includes balance sheet, income statement, and other supplementary accounting data at the firm level. Since the financial settlement of the majority of firms was on a semi-annual basis until recently, the flow data were added up component by component. No problem was encountered on the comparability of data across these different sources since all of them were ultimately compiled from the same source, the *Yuka Shoken Hokokusho*—financial reports that all listed companies are required to submit on an annual or semiannual basis to the Ministry of Finance.

The sample is drawn from 635 firms that were continuously listed on the First Section of the Tokyo Stock Exchange (TSE) from 1964 to 1970 inclusive. To exclude regulatory and other related effects, sample selection was limited to firms in manufacturing industries which reduced the sample to 468.[26] The list was further pared down by eliminating firms undergoing mergers or severance during this period, firms with incomplete records on the variables included in the analysis, and firms eliminated from the data

tape by Nikkei because they were either involved in mergers or severance in the period following 1970, or because they simply went bankrupt. The sample therefore contains a nonnegligible degree of self-selection with a likely bias toward relatively larger, successful firms.[27] These rounds of elimination left a final tally of 338 firms. Their breakdown according to Nikkei's industry classification is reported in Table 2.

Table 2

Industry classification of sample firms

Industry classification	No. of companies
Food	30
Textiles	29
Pulp and paper products	16
Chemicals	51
Pharmaceutical	14
Oil and coal products	5
Rubber products	4
Glass and ceramics	17
Iron and steel	29
Nonferrous metals	24
Machinery	36
Electric machinery	33
Shipbuilding	5
Automobile	19
Transport equipments	6
Precision instruments	11
Others	9
TOTAL	338

The sampling period was divided into two subperiods—1964-66 and 1967-70—over which sample averages were calculated. Averaging was performed to reduce measurement error due to random year-to-year fluctuations in the variables. The procedure should also serve to smooth the effects of lumpy investments undertaken in a particular year on accounting data. The 3-year averages of the dependent variable, firm size, asset structure, and external financing ratio were measured for the contemporaneous period 1964-67. The variables pertaining to expectations —profitability and growth—were measured over the period 1967 through 1970; that is, I assume rational expectations and use the ex post realized values as proxies of the values expected when the financing decision was made.[28] Finally, the standard deviation of the change in the rate of business profit was measured using all seven years in the sample in order to obtain the maximum efficiency in the measure as possible.

Table 3 reports the summary statistics of the variables analyzed. On average, the level of borrowing from the group of *keiretsu* financial institutions represented a little under 24 percent of the firms' total asset or over 35 percent of total borrowing. A noteworthy finding is that for the vast majority of the sample firms, the legal ceiling of 10 percent did not appear binding: The average main bank's shareholding stood at under 11 percent. (Recall that is a collective measure which typically includes holdings of three or more financial institutions.)

Though not reported in the Table, the second noteworthy finding is that for close to 93 percent of the firms in the sample, the main bank was simultaneously a lender and a shareholder in the firm. Out of a sample of 334 firms, the instance where the main banks held outstanding loans but held no stock was limited to 25 firms (7.5 percent). The prevalent mode of financing for the sample firms thus featured principal lenders as shareholders. Though impressionistic, the finding is consistent with the postulated efficiency of conjoining debt and equity claims.

Our next step is to ascertain whether the cross section data reveal a systematic pattern in the level of shareholding. Since for a small but not negligible proportion of the observations on the dependent variable assumed a limiting

Table 3

Descriptive statistics for the sample firms

Variables	N	Mean	Standard Deviation
Main bank's shareholding	334	0.106	0.125
Asset composition	338	0.247	0.096
External financing ratio	337	0.237	0.112
Ratio of main bank borrowing to total borrowing	338	0.353	0.150
Expected profitability	337	0.207	0.142
Volatility	336	0.035	0.025
Expected growth	337	0.203	0.134
Age (years)	338	34.813	16.121
Size (million Yen)	338	32,274	46,790

Note: all variables except Expected Growth, Age, and Size are ratios; i.e., multiplying them by 100 would convert them to percent levels.

value—i.e., the bank's equity holding was zero—a maximum likelihood Tobit estimator was used.[29] For purposes of comparison, an ordinary least squares estimation was also performed.

The Results

As a preliminary step to running the regressions, a Pearson correlation analysis was performed. The magnitude of collinearity among the explanatory variables was minimal, so the results are not reported. To check for possible industry effects on the model, a standard analysis of variance was performed using industry dummy variables.[30] Surprisingly, no statistically significant industry effect was detected in the data.

The main empirical findings of this paper are contained in Table 4.[31] No material difference is discernible between the estimated coefficients of the TOBIT and OLS regressions. This suggests that the censoring problem was minimal. Finally, different functional specifications were also tried for possible non linear relationships between the variables. The results turned out to be uniformly inferior to the linear specification and are not reported.

To begin with the proxies for bankruptcy cost, the collateral value of the firm yielded a positive coefficient. The model thus predicts that as the proportion of tangible assets in total assets increases, the lender's shareholding in the firm will increase. This clearly runs counter to the commonly subscribed view that tangible assets lose less value relative to intangible assets in times of financial distress. Several interpretations are possible. For example, the obtained sign may reflect the asset-specificity problem discussed by Williamson (1985), i.e., tangible assets, as positive correlates of transaction-specific investment, impose higher bankruptcy costs. However, it is difficult to reconcile this argument and the prediction that higher collateral also means lower risk and hence leads to lower shareholding by the main bank. In light of this, one cannot dismiss the possibility that the "perverse" sign may be due to the measurement problems discussed earlier, particularly with respect to the valuation of the firm's land holdings.

The proxy for indirect bankruptcy costs—the expected growth of the industry— yielded the predicted positive sign; that is, the main bank tends to hold higher equity stakes in firms expecting more rapid growth. The statistical significance of the estimate is rather tentative, however. No doubt, this reflects the considerable amount of statistical noise that is likely to intrude on industry classifications of the sample firms.

The most notable result is the positive and statistically significant coefficient (at the 1 percent level) for the firm's external financing ratio; that is, as larger fractions of the firm's investment are financed by the main bank's funds, the larger is the latter's equity stake in the firm. According to the TOBIT estimate, an increase by 0.111 in the external financing ratio—one standard deviation in the sample—increases the main bank's shareholding in the firm by 2.7 percent.[32] Similar conclusions can be drawn on the basis of OLS results. These findings lend support to an oft-noted observation that Japanese banks exercise considerable influence on the firm by virtue of their shareholding.[33]

Table 4

Determinants of the level of main bank's shareholding

	TOBIT regression	OLS regression
Collateral value	0.197 (6.175)**	0.174 (2.268)**
Expected industry growth	0.401 (3.461)*	0.405 (1.962)*
External financing ratio	0.244 (14.826)***	0.241 (3.934)***
Expected profitability	−0.077 (1.570)	−0.070 (−1.183)
Volatility	0.665 (3.845)**	0.665 (2.012)**
Expected firm growth	0.018 (0.442)	−0.011 (−0.132)
Age	-1.8×10^{-5} (0.002)	-6.9×10^{-5} (−0.164)
Size	-3.1×10^{-7} (4.04)**	-2.5×10^{-7} (−1.73)*
Constant	−0.096 (2.291)	−0.080 (−1.305)
Limit observations: 25 Non-limit observations: 311 Log likelihood: 182.45 Squared Correlation (*Y*,*E*(*Y*)): 0.111 LR test: 38.91***		R^2: 0.093 *F*-statistics: 5.234***

Note: Significance levels: * = 0.10, ** = 0.05, *** = 0.01; chi-square statistics (*t*-statistics) in parentheses for TOBIT (OLS) regression.

Although an inverse relation obtained as was predicted between the level of main bank's shareholding and the expected profitability of the firm, the coefficient turned out to be statistically insignificant.

As predicted, a positive relation obtained between the main bank's shareholding and the volatility of the firm's profit which proxied for risk. The estimated relationship predicts that an increase in volatility by the magnitude of one standard deviation in the sample will increase the bank's shareholding in the firm by nearly 1.7 percent. By contrast, the second proxy for risk, the expected growth of the firm did not yield a significant result. Although an inverse relation obtained between the level of the main bank's shareholding and the firm's age, the coefficient was statistically insignificant.[34] However, an inverse and statistically significant relationship did obtain between the firm's size and the percentage of residual claims issued to the bank.

III. Conclusions

On the basis of published accounting data, this paper investigated the benefits of joint debt-equity financing, by examining the determinants of ownership structure of Japanese firms during the era of rapid growth. Any test of optimal financial structure, motivated in part or in whole by information asymmetry, must necessarily be crude. By definition, the researcher who must depend on publicly available information is subject to the very type of information asymmetry faced by a firm's outside investor. In this respect, the student of Japanese corporate finance is especially handicapped. The statistical noise due to the poor quality of corporate disclosure in Japan no doubt accounts for a significant portion of the sizable unexplained variance that remains in the regressions.[35]

These limitations notwithstanding, the empirical analysis did yield plausible results in support of the theoretical model. For one, rarely did banks forgo the opportunity to hold an equity stake in firms where significant lending occured. Thus, if any efficiency gains were made possible by a legal system that conferred securities powers to banks, they did not go unexploited. Furthermore, the cross section evidence generally supports the view that agency cost considerations indeed seem to matter in how banks structure their claims in client firms. The most notable results in this respect are that the amount of equity stake that the bank held in the firm increased with the level of financing the bank extended to the firm and with the level of risk. The bank's capacity to participate in corporate equity is crucial in "reconciling" the aggressive lending behavior of Japanese banks during the period of rapid growth on the one hand, and on the other, the low level of net worth and hence relatively high loan risks in the corporate sector. These considerations may be relevant to policymakers in the U.S. currently faced with the task of overhauling its banking system.

ENDNOTES

1. In the process of dissolving the *zaibatsu*—the financial "cliques" which allegedly precipitated Japan's entry into war—the Occupation forces severely curtailed the power of Japanese banks in addition to outlawing intercorporate shareholding by nonfinancial corporations. These stiff provisions were subsequently relaxed as Japan was poised to embark from reconstruction to rapid peacetime growth. Reciprocal shareholding became legal again in 1949, thus ushering the way for many of the former *zaibatsu* firms to regroup under the present day *keiretsu*. And unlike in the United States, the city banks which form the nuclei of these corporate groups, (along with trust banks and insurance companies) were empowered to hold corporate shares subject to a legal maximum. Until 1987, the legal limit was set to 10 percent of the outstanding stocks of any single company; the ceiling currently stands at 5 percent.

2. This very question was addressed also by Pozdena (1991).

3. See for example, Kester (1986), Allen and Mizuno (1989) and Prowse (1990).

4. This section draws heavily from Kim (1991) which provides a more formal treatment on the subject. A compressed version of the formal model is sketched out in Appendix A.

5. One can think of this variable as unforeseen events such as bad weather, a technological discovery, or war in the Persian Gulf.

6. This assumption abstracts the bond market (as well non-financial credit intermediaries) from the analysis, thus allowing us to focus on the implication of granting equity powers to financial intermediaries. The implicit premise here is that in the economy under consideration, intermediated debt finance (i.e., bank loans) are preferred to direct borrowing (bonds). This could be because, as is now widely recognized in the literature, banks possess a comparative advantage in information production, such as screening and monitoring borrowers. By implication, this comparative advantage will be heightened in situations where information-related problems are acute in the system, as is presumed here.

7. Empirical analysis on bankruptcy costs is scarce. Frequently cited is a case study of a railroad bankruptcy by Warner (1977) which finds the direct costs to be rather negligible. But a more recent case study of corporate reorganization in the oil industry by Cutler and Summers (1988) suggests that the indirect costs of financial distress can be very substantial indeed. According to the authors' estimate, the dispute between Texaco and Pennzoil over the Getty Oil takeover imposed a deadweight loss equivalent to some one-sixth of the combined wealth of the two companies.

8. We say residual profit because the profit accruing to shareholders consists of what remains after creditors have been paid off. For this reason, equity is sometimes referred to as a "residual claim" to the firm. By contrast, debt is a "fixed claim" since its return, provided the firm is solvent, is invariant to the firm's profit; if the firm is insolvent, fixed claimants become residual claimants, i.e., creditors take over the ownership of the firm's assets.

9. It is for these reasons that the distinction between the original and new shareholders is crucial. To reflect their different access to information, the initial owner will sometimes be referred to as the "inside share" and the new shareholder as "outside share."

10. The distinction between the inside and outside shareholder is not important here. The outside shareholder will end up participating in the moral hazard of risk shifting to debtholders, without necessarily being privy to the insider's information or his action.

11. The modern theory of financial intermediation critically hinges on the postulated efficiency of banks as monitors in the presence of moral hazard. For example, Diamond (1984) argues that diversification within the intermediary enables it to monitor at a lower cost than if scattered principals (depositors) were to monitor individually. In a related vein, in view of the bank's superior access to the firm's information, Fama (1985) distinguishes bank loans as "inside debt" from the open capital market "outside debt" such as bonds.

12. I focus on the level of equity holding by Japanese banks and omit discussion on the level of debt for the following reason. Under the rubric of the so-called "low interest rate policy," a usury regulation on corporate lending remained in effect throughout most of the postwar period. There is now ample evidence that banks tried to circumvent this regulation, most notably by requiring firms to post compensating balances. Reported interest rates are likely to diverge from the effective interest rate and hence, measured levels of debt may diverge substantially from actual levels. (See, e.g., Wakita (1983)).

13. By implication, a firm will try to finance an investment project out of internal funds whenever possible and thereby avoid the deadweight costs of going to the external market. This option will be foreclosed, however, if investment projects are "lumpy," i.e., project size rises in discrete increments and the minimum.

14. Section II provides a discussion on the empirical proxies for this and other firm-specific parameters.

15. For a concise survey of Japanese financial markets and corporate finance, see Hodder and Tschoegl (1985).

16. The concentration ratio remains high in this industry. At the end of 1980s, the top eight domestic life insurance companies among a total of 21 controlled over 80 percent of total assets (Hodder and Tschoegl 1985, p. 176).

17. See also Horiuchi et al., (1988), Horiuchi (1989) and Hoshi et al., (1990a).

18. See Hodder and Tschoegl (1985), Suzuki and Wright (1985) and Hoshi et.al. (1990b). According to Nakatani

(1984), the main raison d'être of *keiretsu* and main banking is precisely to minimize the probability of encountering financial distress through a mutual risk-sharing arrangement among member firms and financial institutions.

19. The membership of the various *keiretsu* financial institutions as well as a list of "independent" ones, i.e., financial institutions without any *keiretsu* affiliation, are in Appendix B.

20. Another proxy for bankruptcy costs (as well as risk) often used in the literature is the level of R&D and advertising expenditures as a proportion of the firm's total sales or total assets. The presumption here is that these variables measure the firm's growth opportunities, i.e. they add value to the firm but cannot be collateralized. Unfortunately, Japanese companies were not required to disclose expenditures on these items until the 1970s; hence this particular proxy could not be included in the estimated model.

21. Total tangible fixed assets consists of depreciable and nondepreciable assets. Buildings and structures, machinery and equipment, vessels and vehicles, etc., fall under the former category; land and construction in progress fall under the latter. Inflation accounting was virtually unheard of in Japan during the period under review. Hence, assets reported in the balance sheet understate their prevailing value by a significant margin. Corporate assets held in land are particularly problematic given the steep increase in real estate prices during the postwar period. This is doubly troublesome since land has been one of the traditionally favored forms of collateral required by banks. In the absence of more detailed information on corporate land holding, any attempt at market value adjustment, however, is likely to introduce additional measurement error. The empirical model was therefore estimated using book values of assets.

22. This is a scaled measure of volatility, since business profit was normalized by the firm's total assets.

23. See for example MacKie-Mason (1989) and Titman and Wessels (1988).

24. These are some of the very reasons why *de novo* firms often obtain financing through joint ventures rather than bank loans.

25. The size of a firm will also have direct bearing on how much bargaining power it has vis-à-vis the bank. If Japan's banking industries was not perfectly competitive, greater bargaining power for the firm may imply lower levels of residual and fixed claims issued to the bank.

26. Nonmanufacturing industries, such as communications or utilities, tend to be heavily regulated. Corporate financing decisions will not be neutral to regulations. For example, holding other things constant, a firm operating in an industry which limits entry will be able to support a greater amount of debt because entry barriers confer oligopoly rent and lowers business risk. Regulated industries are also subject to greater public scrutiny and hence are more limited in engaging in moral hazard.

27. Admittedly, the moral hazard problem for these larger firm would be much less severe than for smaller firms. Unfortunately, as is the case elsewhere, access to data about smaller (and hence unlisted) Japanese firms is very limited. Criticism of self-selection bias should be tempered on at least one count, however, namely, that the dependence on external financing even for the largest firms was very pronounced during the period under review. On this ground alone, one cannot dismiss the potential moral hazard problem as trivial. The proof of the pudding of course is in the eating.

28. This also obviates possible multicollinearity problems between profitability and external financing requirement. *Ceteris paribus*, external financing ratio are lower for more profitable firms since larger fractions of investments can be financed through retained earnings. The collinearity is avoided when forward values of profitability are used.

29. The TOBIT technique is designed to use all observations, both those at the limit (in our case, bank's shareholding equaling zero) and those above it, to estimate a regression line. Tobin pioneered this technique in his classic study of the influence income on household expenditures on durable goods, where a large percentage of the sampled households made no durable purchases during the survey period. The idea is that since durable goods by nature are not divisible, a certain threshold level of income must to be reached before one actually observes positive levels of purchase. The coefficient estimated by TOBIT thus explains the change in the dependent variable y in terms of two components: (1) the change in y of those above zero, weighted by the probability of y being greater than zero; and (2) the change in the probability of y being greater than zero, weighted by the expected value of y given that it is greater than zero. Generally speaking, when the dependent variable is censored, OLS estimation will yield biased estimates of coefficients. How significant this bias is will depend on the severity of the censoring problem.

30. The data problem discussed in footnote 20 provides one motivation. One would expect to find systematic interindustry differences in the relative importance of R&D and advertising expenditures: for example, pharmaceutical firms are likely to be more research-intensive than textiles manufacturers. Any systematic variation that remains in the error term due to the omission of this variable will be picked up by the industry dummy.

31. Industry dummies were not included since they were found to be insignificant.

32. Strictly speaking, the coefficient from TOBIT estimation overstates the effect of the explanatory variables. The appropriate procedure is to weigh the coefficient by the expected probability that a given observation has a nonlimiting dependent variable. Since this weight turned out to be virtually equal to unity, little harm is done by ignoring this caveat. For a more extensive discussion on this issue, see McDonald and Moffitt (1980).

33. For example, Japanese banks are said to wield much influence on client firms' capital spending plans. Particularly noteworthy in regard to banks' corporate control through shareholding is the legal provision that allows major shareholders to remove corporate directors at any time, without cause by an ordinary resolution of a shareholder general meeting.

34. Regressions were also run with the age variable specified as a dummy variable, taking a value of 1 if the firm was founded after W.W.II and 0 otherwise. This did not yield a significant estimate either.

35. The poor quality of accounting data in Japan is not an aberration; it should be expected. Throughout most of the postwar period, corporate finance was the virtually exclusive domain of banks. By implication, banks monopolized on corporate monitoring and used the information in allocating investable funds. In the absence of any active open issue market to speak of, the lack of public disclosure as deep and broad as found in the U.S. or U.K. is natural to expect.

36. To minimize notational clutter, the firm-specific parameters μ and α will be suppressed unless called for in the analysis.

37. Note that this amounts to saying that equity issues do not in themselves generate funds. This simplifying assumption is actually consistent with Japanese corporate financing practice during the period under review. Virtually without exception, equity was issued at a par value of 50 yen per share. Needless to say, this issue price represented a negligible fraction of the market value of equity for most of the listed firms.

Appendix A
A Sketch of a Model of Optimal Financial Contracts

This Appendix outlines a simple model of optimal financial contracts between an entrepreneurial firm and a shareholder bank. The return to the firm's investment takes the form $\tilde{X} = e + \theta + \mu$; e denotes effort, θ is a random variable, and μ is a firm-specific parameter that indexes the profitability of investment. Return increases in all three variables. Unless stated otherwise, assume that θ is uniformly distributed over $[\underline{\theta}, \bar{\theta}]$ with $E\theta = 0$. Denote the spread of the distribution (hence the riskiness of the investment) by α, $\alpha = \bar{\theta} - \underline{\theta} = 2\bar{\theta}$.[36]

To procure some fixed amount of external financing, L, the owner-manager can issue the bank a fixed claim (i.e. debt) equal to RL, where L is the amount borrowed and $R = (1 + r)$ is the gross interest rate, and/or cede a portion of his equity λ, retaining for himself the remaining fraction $(1 - \lambda)$.[37]

Assuming risk-neutrality throughout, the expected profit of the owner-manager is:

$$\text{(A1)} \quad \phi = (1 - \lambda) \int_{\theta^*}^{\bar{\theta}} [e + \theta - RL] dF(\theta) - u(e),$$

where $\theta^* = RL - e$ denotes the critical value of θ below which bankruptcy occurs, and $u(e)$ measures the disutility that the manager associates with effort. Assume $u_e > 0$, $u_{ee} > 0$. Note that because of limited liability, the owner-manager cares about the expected return only over the states where the firm is solvent.

The expected profit of the bank is given by:

$$\text{(A2)} \quad \pi = RL(1-F(\theta^*)) + \lambda \int_{\theta^*}^{\bar{\theta}} [e+\theta-RL] dF(\theta) + \int_{\underline{\theta}}^{\theta^*} [e+\theta-B] dF(\theta) - \rho L \geq 0.$$

The first term is the debt owed to the bank times the probability that the firm will be able to honor it. The second term is the return accruing to the bank through its equity holding, while the third is the expected value of the firm over states where the firm defaults. Bankruptcy is costly in the sense that the value of the firm is eroded by some fixed amount B when the bank takes over ownership. Finally, the last term represents the opportunity cost the bank associates with providing L to the firm. Competition among banks ensures that equation (2) equals zero.

For any given combination (R, λ), the manager will set the effort level so as to maximize his own expected profit; that is, e^* will be chosen to satisfy:

$$\text{(A3)} \quad \phi_e = (1 - \lambda)(1 - F(\theta^*)) - u_e = 0.$$

To ensure a maximum, assume $\phi_{ee} < 0$. Implicit differentiation of (A3) yields the direction of adjustment in effort with respect to the contract variables:

$$\text{(A4)} \quad e_R^* = (1-\lambda) Lf(\theta^*)/\phi_{ee} < 0 \qquad e_\lambda^* = (1-F(\theta^*))/\phi_{ee} < 0$$

In valuating the claims issued by the firm, the rational bank will anticipate these effort responses in addition to changes in the expected cost of bankrutpcy. Consequently, the problem facing the owner-manager is to choose a structure of claims R (and hence RL since L is fixed) and λ that maximizes his expected profit (1) subject to the "budget constraint" (A2) and the incentive constraints (A3) and (A4). The relevant first-order condition for an interior optimum is given by:

$$\text{(A5)} \quad \frac{\phi_\lambda}{\phi_R} = \frac{\pi_e e_\lambda}{\pi_e e_R - BLf}; \; \pi_e = \lambda(1-F) + F + Bf > 0.$$

The left-hand side (LHS) of (A5) is the ratio of the marginal response in the firm's profit with respect to the contract variables, $\phi_R < 0$, $\phi_\lambda < 0$. The RHS is the ratio of the marginal deadweight costs. For issues of equity claims (λ), this deadweight cost equals the marginal response of the bank's expected profit with respect to effort times the change (decline) in effort induced by an increase in λ. For issues of debt (R), the deadweight cost divides into two components: $\pi_e e_R < 0$, which has a similar interpretation as above, and BLf, the marginal increase in the expected cost of bankrutpcy.

Because the optimization problem involves a nonlinear constraint, the comparative static analysis turns out to be quite complex. The discussion here highlights the basic intuition underlying the adjustments in the equilibrium value of the bank's shareholding λ^*, in response to changes in firm-specific parameters. (See Kim (1991) for a more complete treatment). From (A5), λ^* will depend on the severity of the deadweight cost of equity *relative* to that of debt. All other things equal, therefore, the direction of adjustment in λ^* will depend on how a given parameter affects the relative severity of these (marginal) deadweight costs.

Consider first an increase in bankruptcy cost B which is the most transparent case. Intuition suggests that this increases the deadweight cost of debt relative to that of

equity and hence leads to the adjustment $\partial\lambda^*/\partial B > 0$. A necessary condition for this to obtain is:

$$\text{(A6)}\quad \frac{\partial}{\partial B}\left(\frac{\pi_e e_\lambda}{\pi_e e_R - BLf}\right) < 0 \rightarrow (\pi_e e_R - BLf)(e_\lambda f) - \pi_e e_\lambda (e_R f - Lf) < 0.$$

Rearranging and simplifying yields the inequality $L[\lambda(1 - F(\theta^*)) + F + Bf] > BLf$, and hence $\partial\lambda^*/\partial B > 0$.

Following a similar procedure, the direction of adjustment for λ^* with respect to an increase in L, the extent to which the firm relies on the bank's funds, will hinge on the sign of

$$\text{(A7)}\quad (\pi_e e_R - BLf)[\pi_e e_{\lambda L} + e_\lambda(\pi_{eL|\bar{e}} + \pi_{ee} e_L)] - \pi_e e_\lambda[\pi_e e_{RL} + e_R(\pi_{eL|\bar{e}} + \pi_{ee} e_L) - Bf].$$

With some tedious algebra it can be shown that e_{RL}, e_L, $\pi_{ee} < 0$, $\pi_{eL|\bar{e}} > 0$ (hence $\pi_e e_\lambda[\bullet] > 0$), and that $\pi_e e_{\lambda L} + e_\lambda(\pi_{eL|\bar{e}} + \pi_{ee} e_L) \geq 0$ for all $\pi_e \geq u_e$ (which holds for all cases of interest). Therefore, the expression in (A7) is negative, which in turn implies $\partial\lambda^*/\partial L > 0$.

In contrast to the previous two cases, an increase in the profitability of investment μ increases the relative deadweight cost of equity and hence leads to a lower λ^*. A necessary condition for such an adjustment to obtain is:

$$\text{(A8)}\quad (\pi_e e_R - BLf)[\pi_e e_{\lambda\mu} + e_\lambda(\pi_{e\mu|\bar{e}} + \pi_{ee} e_\mu)] - \pi_e e_\lambda[\pi_e e_{R\mu} + e_R(\pi_{e\mu|\bar{e}} + \pi_{ee} e_\mu)] > 0.$$

It is relatively straightforward to show that $e_\mu > 0$, $e_{R\mu} = 0$, $e_{\lambda\mu}$, $\pi_{e\mu|\bar{e}} < 0$ and hence that $\pi_e e_\lambda[\bullet] < 0$. A negative (or zero) value for the expression inside the first set of square brackets is thus sufficient to establish the inequality in (A8). After some manipulation this can be shown to hold unambiguously for cases where $\pi_{ee} > \phi_{ee}$, i.e., the marginal return to effort diminishes faster for the firm than the bank.

Finally, intuition suggests that increased riskiness should lead to a greater issue of λ^*. It turns out, however, that the actual direction of adjustment is sensitive to the distributional assumption as well as to the initial equilibrium value of λ^* and R^* (and hence to the initial default probability). Full treatment on this issue exceeds the scope of this paper. Instead, we simply state the result here that $\partial\lambda^*/\partial\alpha > 0$ obtains with the least degree of ambiguity for cases $\partial f(\theta^*)/\partial\alpha > 0$ where α indexes the riskiness of the distribution. The intuition is simple. All other things equal, the relative severity of deadweight cost associated with debt rises if greater riskiness increases the marginal deadweight cost of bankruptcy, *BLf*.

Appendix B
Keiretsu Affiliations of Financial Institutions, 1964–70

Affiliated Banks

Mitsui Group:
Mitsui Bank, Mitsui Trust and Banking, Taisho Marine and Fire Insurance, Mitsui Life Insurance Company.

Mitsubishi Group:
Mitsubishi Bank, Mitsubishi Trust and Banking, Tokio Marine and Fire Insurance, Meiji Life Insurance Company.

Sumitomo Group:
Sumitomo Bank, Sumitomo Trust and Banking, Sumitomo Marine and Fire Insurance, Sumitomo Life Insurance Company.

Fuyo (Fuji) Group:
Fuji Bank, Yasuda Trust and Banking, Yasuda Fire and Marine Insurance, Yasuda Life Insurance Company.

Sanwa Group:
Sanwa Bank, Toyo Trust and Banking, Daido Life Insurance Company.

Dai-Ichi Group:
Dai-Ichi Bank, Asahi Life Insurance Company.

Unaffiliated Banks

Long-Term Credit Banks:
Industrial Bank of Japan, Long-Term Credit Bank of Japan, Nippon Credit Bank

City Banks:
Hokkaido Takushoku Bank, Bank of Tokyo, Daiwa Bank, Tokai Bank, Kyowa Bank, Kobe Bank, Nippon Fudosan Bank, Norin Chuo Kinko

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